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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/732,962	12/11/2003	Er-Xuan Ping	MIO 0088 V3/40509.280	9292
23368	7590	06/28/2005	EXAMINER	
DINSMORE & SHOHL LLP ONE DAYTON CENTRE, ONE SOUTH MAIN STREET SUITE 1300 DAYTON, OH 45402-2023			NHU, DAVID	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/732,962

Applicant(s)

PING, ER-XUAN

Examiner

David Nhu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 5-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received. 09/975, 279
2. ☒ Certified copies of the priority documents have been received in Application No. 10/139,987.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTIONS

Election/Restrictions

1. *Applicant's election of Species I (Claims 1-4, 24-26) is acknowledge.*

Claims 1-4, 24-26 are remained for examination. Accordingly, claims 5-23 are canceled/withdrawn from consideration as being directed to a non-elected invention.

See 37 CFR 1.142(b) and MPEP § 821.03.

DOUBLE PATENTING

2. **Claims 1, 24 of Application No. 10/732,962** are rejected under the judicially created doctrine of obviousness-type double patenting over **claims 1-6 of U. S. Patent No. 6,787,834 B2** since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application and similar language recited in the patent claims obviously depict a similar method having either same steps and/or same materials, and such is also disclosed in both the patent and the instant application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1-4, 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Zheng (6,825,081 B1), and Doan (6,235,571 B1).

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Regarding claims 1, Zheng, (see figures 2A-2E, col. 5, lines 32-67, col. 6, 7, lines 1-67), teaches a semiconductor assembly comprising: a nitridation receptive material 18'; a nitridation resistive material 14'; and a silicon dioxide 20' monolayer formed directly on said nitridation receptive material and said nitridation resistive material.

Regarding claims 2-3, Zheng, (see figures 2A-2E, col. 1-18), also teaches wherein the nitridation receptive material is polysilicon or HSG 18'; the nitridation resistive material is insulative material selected from BPSG and oxides; a nitride film 20' provided over said monolayer.

Regarding claim 24, Zheng, (see figures 2A-2E, col. 5, lines 32-67, col. 6, 7, lines 1-67), teaches a nitridation receptive material 18' and a nitridation resistive material 14'; a conformal silicon dioxide monolayer provided to said nitridation receptive material and said nitridation resistive material via chemisorption; and a uniformly thick dielectric compound 20' on said monolayer.

Regarding claims 25-26, Doan (figures 1-4, col. 4, lines 54-61), teaches wherein the dielectric comprises a material selected from silicon nitride and tantalum oxide (TaO); wherein the monolayer comprises a material selected from silicon dioxide and tantalum.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ping'063 are cited as of interest.

6. A shortened statutory period for response to this action is set to expired 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see 710.02 (b)).

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7. Any inquiry concerning this communication on earlier communications from the examiner should be directed to David Nhu, (571)272-1792. The examiner can normally be reached on Monday-Friday from 7:30 AM to 5:00 PM. The examiner's supervisor, David Nelms can be reached on (571)272-1787.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the patent application information retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private

PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Nhu 

June 24, 2005

